

**Notice of Allowability**

Application No.

10/699,663

Examiner

Thomas A. Morrison

Applicant(s)

SU, YU-JEN

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interviews on 8/12/05 and 9/15/05.
2. ☒ The allowed claim(s) is/are 1-4 and 8-17.
3. ☒ The drawings filed on 19 July 2005 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

10

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Rabin (Reg. No. 29,102) on September 15, 2005.

Please amend the paragraph beginning on page 4, line 20 as follows:

-- The swing arm 130 also is formed in an elongated plate. It has a pivoted upper end 131, located upstream relative to the direction of paper feeding 440 from the rotation axis of the idler gear 120, and coupling with a hollow and transverse connecting strut 132 to engage pivotally with an axle 420 extending from the inner wall of the feeding paper tray 400. So the entire swing arm 130 can swing around the connecting strut 132 at the pivoted end 131. The swing arm 130 has a bottom to serve as a swing end 133. The swing end 133 has two sides extending downwards to form respectively a first connection plate 134 and a second connection plate 135. --

Please amend the paragraph beginning on page 5, line 15 as follows:

-- During the paper pickup process, the driver gear 110, whose rotation axis is located downstream of the rotation axis of the idler gear 120 in the direction of paper

feeding 440, receives driving power from the gear set 500 and rotates in clockwise direction, and drives sequentially the idler gear 120, pickup gear 140 and pickup roller 150. The pickup roller 150 rotates clockwise in the direction of paper feeding 440. As the pickup roller 150 is movable and serves as a joint of the "four bar linkage mechanism" that has a lot of degree of freedom, its rotation generates a torque that forms a normal force applying on the paper 430 located on the top of the feeding paper tray 400. The normal force gradually increases until the paper 430 on the top starts moving in the paper feeding direction 440. Namely, the normal force varies depending on the properties of the paper such as weight, density or stiffness. Thus it can automatically compensate the paper pickup force according to different paper properties, without the problems of multi-feeds or feeding failure. --

Art Unit: 3653

In claim 1, line 5 before "having", -- and -- has been inserted.

In claim 1, line 6 before "rotation", "the" has been deleted.

In claim 1, line 6 before "rotation", -- a -- has been inserted.

In claim 1, line 12 before "paper", -- a -- has been inserted.

In claim 1, line 13 before "top", "the" has been deleted.

In claim 1, line 13 before "top", -- a -- has been inserted.

In claim 1, line 14 before "rotation axis of the pickup gear", "wherein the" has been deleted.

In claim 1, line 14 before "rotation axis of the pickup gear", -- a -- has been inserted.

In claim 1, line 15 before "linked", "are" has been deleted.

In claim 1, line 15 before "linked", -- being -- has been inserted.

In claim 1, line 15 after "engaging", -- the pickup gear and the idler gear -- has been inserted.

In claim 1, line 15 after "other", -- ; and the first linkage bar extending from the rotation axis of the driver gear to the rotation axis of the idler gear and the second linkage bar extending from the rotation axis of the pickup gear to the rotation axis of the idler gear such that the rotation axis of the driver gear is located downstream of the rotation axis of the idler gear and the pivoted end of the swing arm is located upstream of the rotation axis of the idler gear -- has been inserted.

***Allowable Subject Matter***

2. The following is an examiner's statement of reasons for allowance:

U.S. Patent No. 6,648,322 (Park) is the closest prior art reference of record. The Park reference discloses a paper pickup mechanism located on one side of a paper tray, including a driver gear, an idler gear, a first linkage bar, a swing arm, a pickup gear, a pickup roller and a second linkage bar. However, this reference fails to disclose or suggest the specific arrangement of the first and second linkage bars relative to the driver gear, the idler gear, the pickup gear and the pivoted end of the swing arm, as now set forth in independent claim 1 by the examiner's amendment above.

More specifically, the Park patent fails to disclose or suggest a first linkage bar that extends from a rotation axis of a driver gear to a rotation axis of an idler gear and a second linkage bar that extends from a rotation axis of a pickup gear to the rotation axis of the idler gear such that the rotation axis of the driver gear is located downstream of the rotation axis of the idler gear and a pivoted end of a swing arm is located upstream of the rotation axis of the idler gear, as now set forth in independent claim 1 by the examiner's amendment above.

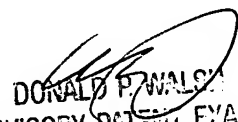
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on (571) 272-6944. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
DONALD P. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600